

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Li Gao Art Unit : Unknown
Serial No. : Unknown Examiner : Unknown
Filed : Herewith
Title : METHOD FOR DETERMINING PARAMETERS OF EARTH FORMATIONS
SURROUNDING A WELL BORE

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Under 35 U.S.C. §120, this application relies on the earlier filing date of application serial number 10/116,472, filed on April 4, 2002. The following references were submitted to and/or cited by the U.S.P.T.O. in the prior application and, therefore, are not provided in this application.

This statement is being filed with the application. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: August 20, 2003

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Substitute Form PTO-1449 (Modified)		U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 15903-002002	Application No. Unknown
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Li Gao		
		Filing Date Herewith	Group Art Unit N/A	

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	5,210,691	11/5/1993	Freedman, et al.			
	AB	6,466,872	10/2002	Kriegshauser, et al.			
	AC	6,344,746	02/2002	Chunduru			
	AD	6,230,101	5/2001	Wallis			
	AE	5,870,690	02/1999	Frenkel, et al.			
	AF						
	AG						
	AH						

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AI							
	AJ							
	AK							
	AL							

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
	AM	Doll, H. G., "Introduction to Induction Logging and Application to Logging of Wells Drilled with Oil Base Mud," <i>Petroleum Transactions, AIME</i> , Vol. 1, No. 6, pp. 148-162, June, 1949
	AN	George, Jr., C. F., Smith, H. W., and Bostick, Jr., F. X., "Application of Inverse Filters to Induction Log Analysis," <i>Geophysics</i> , Vol. 29, No. 1, pp. 93-104, February 1964.
	AO	Shen, L.C., "Effects of Skin-Effect Correction and Three-Point Deconvolution on Induction Logs," <i>The Log Analyst</i> , 30, No. 4, pp. 217-224, July-August 1989.
	AP	Lin, Y., Gianzero S., and Strickland, R., "Inversion of Induction Logging Data Using the Least Squares Technique," 25 th Ann. Log. Symp. Trans., Soc. Prof. Well Log Analyst, paper AA1-14, 1984
	AQ	Gianzero, S., Lin, Y. and Su, S., "A New High-Speed Hybrid Technique for Simulation and Inversion of Resistivity Logs," Paper SPE 14189, <i>Society of Petroleum Engineers</i> , 60 th Annual Technical Conference and Exhibition of the Society of Petroleum Engineers, Las Vegas, NV, September 22-25, 1985
	AR	Zhang, Y. Shen, L.C., and Liu, C., "Inversion of Induction Logs Based on Maximum Flatness, Maximum Oil, and Minimum Oil Algorithms," <i>Geophysics</i> , Vol. 59, No. 9, pp. 1320-1326, September 1994

Examiner Signature

Date Considered

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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	AS	Dyos, C. J., "Inversion of Induction Log Data by the Method of Maximum Entropy," Society of Professional Well Log Analysts, 28 th Annual Logging Symposium, pp. T1-13, June 29-July 2, 1987
	AT	Freedman, R. and Minerbo, G.N., "Maximum Entropy Inversion of Induction Log Data," SPE 19608, 64 th Annual Technical Conference and Exhibition of the Society of Petroleum Engineers, San Antonio, TX, pp 381-394, October 8-11, 1989
	AU	Freedman, R. and Minerbo, G. N., "Maximum Entropy Inversion of Induction-Log Data," <i>SPE Formation Evaluation</i> , pp. 259-268, June 1991
	AV	San Martin, L., Chen, D., Hagiwara, T., Strickland, R., Gianzero, S. and Hagan, M., "Neural Network Inversion of Array Induction Logging Data for Dipping Beds," Society of Professional Well Log Analysts, 42 nd Annual Logging Symposium, Paper, pp. U1-11, June 17-20, 2001
	AW	Broyden, C. G., "A Class of Methods for Solving Nonlinear Simultaneous Equations," <i>Math. Comp.</i> , 19, pp. 577-593, 1965
	AX	Smith, N.C. and Vozoff, K., "Two-Dimensional DC Resistivity Inversion for Dipole-Dipole Data," <i>IEEE Transactions on Geoscience and Remote Sensing</i> , Vol. GE-22, No. 1, pp. 231-28, January 1984
	AY	Lawson, C. L. and Hanson, R. J., "Solving Least Squares Problems," <i>Society for Industrial and Applied Mathematics</i> , 1995
	AZ	Gull, S. F. and Daniell, G. J., "Image Reconstruction from Incomplete and Noisy Data," <i>Nature</i> , Vol. 272, pp. 689-690, April 20, 1978
	AAA	Fleisher, M., Mahlab, U. and Shamir, J., "Entropy Optimized Filter for Pattern Recognition," <i>Applied Optics</i> , Vol. 29, No. 14, pp. 2091-2098, May 10, 1990
	ABB	Jaynes, E. T., "Information Theory and Statistical Mechanics," <i>Physical Review</i> , Vol. 106, No. 4, pp. 620-630, May 15, 1957
	ACC	Shannon, C. E., "The Mathematical Theory of Communication", <i>The Bell System Technical Journal</i> , Vol. 27, pp. 379-423, 623-656, July, October 1948
	ADD	Gill, P. E., Murray, W. and Wright, M. H., "Practical Optimization," <i>Academic Press</i> , pp. 116-119, 1981
	AEE	Chong, E. K. P., Zak, S. H., "An Introduction to Optimization," <i>A Wiley-Interscience Publication</i> , John Wiley & Sons, Inc., 1996
	AFF	Labo J., "A Practical Introduction to Borehole Geophysics," <i>Society of Exploration Geophysicists</i> , 1986
	AGG	Skinner, D. R. <i>Introduction to Petroleum Production</i> , Gulf Publishing Co., Vol. 1, pp. 54-63, 1981
	AHH	Jorden, J. R. and Campbell, F. L., "Well Logging II – Electric and Acoustic Logging," Society of Petroleum Engineers Monograph Series, Vol. 10, pp. 71-87, 1986
	AII	Tabarovsky, L. A., Rabinovich, M. B., "Real Time 2D Inversion of Induction Logging Data," <i>Journal of Applied Geophysics</i> 38, pp. 251-275, 1998
	AJJ	De Boissieu, M., Papoulier, R. J. and Janot, C., "Maximum-Entropy Method as Applied in Quasi-Crystallography," <i>Europhysics Letters</i> , Vol. 16, No. 4, pp. 343-347, September 21, 1991

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